

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 9 (Cancelled)

10. (New) A voice and musical tone coding apparatus comprising:

an quadrature transformation processing section that converts a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation section that finds an auditory masking characteristic value from said voice and musical tone signal; and

a vector quantization section that, when one of said voice and musical tone signal frequency component and said code vector is within an auditory masking area indicated by said auditory masking characteristic value, performs vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.

11. (New) A voice and musical tone coding apparatus comprising:

a quadrature transformation processing section that converts a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation section that finds an auditory masking characteristic value from said voice and musical tone signal; and

a vector quantization section that, when codes of said voice and musical tone signal frequency component and said code vector differ, and codes of said voice and musical tone signal frequency component and said code vector are outside an auditory masking area indicated by said auditory masking characteristic value, performs vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.

12. (New) A voice and musical tone coding method comprising:

a quadrature transformation processing step of converting a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation step of finding an auditory masking characteristic value from said voice and musical tone signal; and

a vector quantization step of, when one of said voice and musical tone signal frequency component and said code vector is within an auditory masking area indicated by said auditory masking characteristic value, performing vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.

13. (New) A voice and musical tone coding method comprising:

a quadrature transformation processing step of converting a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation step of finding an auditory masking characteristic value from said voice and musical tone signal; and

a vector quantization step of, when codes of said voice and musical tone signal frequency component and said code vector differ, and codes of said voice and musical tone signal frequency component and said code vector are outside an auditory masking area indicated by said auditory masking characteristic value, performing vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.

14. (New) A voice and musical tone coding program that causes a computer to function as:

a quadrature transformation processing section that converts a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation section that finds an auditory masking characteristic value from said voice and musical tone signal; and

a vector quantization section that, when one of said voice and musical tone signal frequency component and said code vector is within an auditory masking area indicated by said auditory masking characteristic value, performs vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.

15. (New) A voice and musical tone coding program that causes a computer to function as:

a quadrature transformation processing section that converts a voice and musical tone signal from a time component to a frequency component;

an auditory masking characteristic value calculation section that finds an auditory masking characteristic value from said voice and musical tone signal;

and a vector quantization section that, when codes of said voice and musical tone signal frequency component and said code vector differ, and codes of said voice and musical tone signal frequency component and said code vector are outside an auditory masking area indicated by said auditory masking characteristic value, performs vector quantization changing a calculation method of a distance between said voice and musical tone signal frequency component and said code vector based on said auditory masking characteristic value.